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(54) Title: NOVEL POLYMERS COMPRISING BENZOTRIAZOLE FOR USE IN OPTICAL DEVICES

(57) Abstract: The present invention relates to polymers comprising benzotriazole containing repeating units. Optical devices, comprising the polymers of the present invention, can show significant advantages in color purity, device efficiency and/or operational lifetime. In addition, the polymers can have good solubility characteristics and relatively high glass transition temperatures, which facilitates their fabrication into coatings and films that are relatively thin, thermally stable, and relatively free of defects.

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## INTERNATIONAL SEARCH REPORT

International Application No  
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A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 C08G61/12

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 C08G C07D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 97/12882 A (HOECHST CELANESE CORP) 10 April 1997 (1997-04-10) cited in the application page 11, line 5	1
A	----- WO 01/49768 A (CAMBRIDGE DISPLAY TECHNOLOGY) 12 July 2001 (2001-07-12) cited in the application page 5, line 11 - page 8, line 4; claims 1-16 ----- -/--	1-13

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>YOSHIDA S ET AL: "FUNCTIONAL POLYMERS. XII: SYNTHESIS AND POLYMERIZATION OF 2(2-VINYL-4-HYDROXYPHENYL)2H-BENZOTRIAZOLE AND 2(3-VINYL-4-HYDROXYPHENYL)2H-BENZOTRIAZOLE"</p> <p>MONATSHFTE FUR CHEMIE, SPRINGER VERLAG. WIEN, AT, vol. 113, May 1982 (1982-05), pages 603-622, XP001118170 ISSN: 0026-9247 page 621; figure 5</p>	1-10
A	<p>LI S ET AL: "FUNCTIONAL POLYMERS. XXI SYNTHESIS OF COMPOUNDS WITH MORE THAN ONE BENZOTRIAZOLE GROUP IN THE MOLECULE"</p> <p>MONATSHFTE FUR CHEMIE, SPRINGER VERLAG. WIEN, AT, vol. 114, 1983, pages 937-951, XP001118164 ISSN: 0026-9247 figures 1,2</p>	1-10
A	<p>GOMPPER R ET AL: "Chemistry and Nonlinear Optical Properties of New 2H-Benzotriazole Derivatives"</p> <p>TETRAHEDRON, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, vol. 52, no. 46, 11 November 1996 (1996-11-11), pages 14607-14624, XP004105059 ISSN: 0040-4020 page 14615, line 24 - line 25</p>	1-10
X	<p>US 6 451 887 B1 (WOOD ET AL) 17 September 2002 (2002-09-17) column 2, line 6 - column 8, line 53; claims 1,2; examples 72,73</p>	13
X	<p>WO 02/12204 A (CIBA SPECIALTY CHEMICALS) 14 February 2002 (2002-02-14) page 2, line 4 - page 3, line 10; claim 1; example 32</p>	13
X	<p>DE 26 20 970 A (CIBA-GEIGY) 25 November 1976 (1976-11-25) claim 1</p>	13

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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